

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 4. (Cancelled)

5. (Currently Amended) ~~Use of an agent, wherein said agent is selected from~~ A method for inhibiting metastasis of cancer in vivo and tumor progression in vitro or in vivo, said method comprising using an agent

~~i) an agent capable of inhibiting expression of a polypeptide belonging to the semaphorin family of proteins, and~~

~~ii) i) an agent capable of inhibiting intracellular or extracellular proteolytic processing of a polypeptide belonging to the semaphorin family of proteins, wherein the agent is selected from antibodies or fragments of antibodies directed to said polypeptide, or fragments or variants of fragments of said polypeptide, and/or~~

~~iii)~~ii) ~~an agent capable of inhibiting binding of a~~
proteolytic fragment of a polypeptide belonging to the
semaphorin family of proteins to a receptor of the Plexin
family receptors and thereby inhibiting sequential
activation of said receptor.

~~for the preparation of a medicament for prevention of~~
~~metastasis of cancer in vivo and tumor progression in vitro~~
~~and/or in vivo.~~

6. (Currently Amended) The ~~use~~ method according to claim 5,
wherein

the cancer is lung, blood, breast, prostate, ovary, brain,
kidney, lever, bladder, uterus, haemopoietic tissue, metabolic
and endocrine system, epithelia, muscle, bone cancer, or
cancer of unknown origin.

7. (Cancelled)

8. (Currently Amended) The ~~use~~ method according to ~~any of~~
~~the claims 1-7~~ claim 5, wherein the polypeptide of the
semaphorin family belongs to ~~the group comprising polypeptides~~
~~of the subclass 3 secreted semaphorins or variants, or~~
~~fragments, or variants of fragments thereof.~~

9. - 10. (Cancelled)

11. (Currently Amended) The ~~use~~ method according to claim 98, wherein the polypeptide is mouse Sema3E having the amino acid sequence set forth in SEQ ID NO:1, ~~or natural or synthetic variants, fragments, or variants of fragments thereof.~~

12. (Currently Amended) The ~~use~~ method according to claim 108, wherein the polypeptide is human SEMA3E having the amino acid sequence set forth in SEQ ID NO:2, ~~or natural or synthetic variants, fragments, or variants of fragments thereof.~~

13. - 16. (Cancelled)

17. (Currently Amended) The ~~use~~ method according to ~~any of the claims 1-16~~ claim 5, wherein the agent ~~capable of inhibiting proteolytic processing of the semaphorin as defined in any of the claims 8-12~~ is a peptide fragment of said semaphorin, ~~or variants thereof.~~

18. (Currently Amended) The ~~use~~method according to claim 17, wherein the peptide fragment of semaphorin comprises an amino acid sequence RXK/RR.

19. - 21. (Cancelled)

22. (Currently Amended) The ~~use~~method according to ~~claims 1 and 5~~ claim 5, wherein the agent ~~capable of inhibiting proteolytic cleavage of the semaphorin as defined in any of the claims 8-12~~ is an antibody or a fragment of an antibody, said antibody being raised against said semaphorin, or natural or artificial variants, or peptide fragments thereof, which specifically binds to and inhibits the cleavage of said protein by a serine protease *in vivo*.

23. (Currently Amended) The ~~use~~method according to claim 22, wherein the antibody recognises and binds to an epitope located within a sequence of about 5 to about 50 amino acids in length located in the structural domain of the semaphorin ~~as defined in any of the claims 8-12, said domain comprising a~~ proprotein convertase cleavage site RXK/RR.

24. The ~~use~~method according to claim 22 ~~and 23~~, wherein the antibody is raised against a polypeptide having an amino acid

sequence set forth in SEQ ID NO:1 or SEQ ID NO: 2, ~~or variants~~
or fragments thereof.

25. - 33. (Cancelled)

34. (Cancelled) ~~Use of an agent, wherein said agent is~~
~~selected from~~ Method for treating of malignant forms of
cancer, said method comprising administering to an individual
in need an agent

i) ~~an agent capable of inhibiting intracellular or~~
~~extracellular proteolytic processing of a polypeptide~~
~~belonging to the semaphorin family of proteins, wherein~~
~~the agent is selected from antibodies directed to said~~
~~polypeptide, or fragments or variants of fragments of~~
~~said polypeptide, and/or~~

ii) ~~an agent capable of inhibiting binding of a proteolytic~~
~~fragment of a polypeptide belonging to the semaphorin~~
~~family of proteins to a receptor and thereby inhibiting~~
~~sequential activation of said receptor.~~

~~for the preparation of a medicament for treatment of malignant~~
~~forms of cancer.~~

35. (Cancelled)

36. The ~~use~~ method according to ~~claims 34-35~~ claim 34, wherein the agent is an antibody as defined in ~~any of the claims 15-33~~ claim 22.

37. - 39. (Cancelled)

40. (Currently Amended) An ~~isolated polyclonal~~ antibody compound ~~as defined in the claims 22-25~~, natural or artificial variants thereof, or antibody fragments thereof, which specifically binds to an epitope located within a sequence of about 9 to about 50 amino acids in length located in the structural domain of the semaphorin as defined in ~~any of the claims 8-12~~ claim 8 comprising a proprotein convertase cleavage site RXK/RR, and thereby inhibiting the cleavage of said semaphorin at said cleavage site.

41. - 46. (Cancelled)

47. (Currently Amended) A method for diagnosis of malignant cancer in an individual having a tumor, comprising

- i) assessing the level of expression of the semaphorin as defined in ~~any of the claims 8-12~~ claim 8 in a tumor sample obtained from the individual, and
- ii) detecting fragments of ~~the~~ semaphorin as defined in ~~any of the claims 8-12~~ claim 8 in a body liquid sample, such as blood, urea or faeces, or in a tumor sample obtained from the individual and
- iii) measuring the ratio between ~~a~~ the full length polypeptide of a semaphorin as defined in ~~any of the claims 8-12~~ claim 8 and peptide fragments of said semaphorin in a the tumor and/or a body liquid sample, such as blood, urea or faeces.

48. (Currently Amended) A method for prognosis of malignancy of cancer in an individual having a cancer, comprising

- i) assessing the level of expression of the semaphorin as defined in ~~any of the claims 8-12~~ claim 8 in a tumor sample obtained from said individual, and
- ii) detecting fragments of the semaphorin as defined in ~~any of the claims 8-12~~ claim 8 in a body liquid sample, such

~~as blood, urea or faeces~~ and/or in a tumor sample obtained from said individual, and

iii) measuring the ratio between a— the full length polypeptide of a semaphorin as defined in ~~any of the~~ claims 8-12 claim 8 and peptide fragments of said semaphorin in ~~a~~ the tumor sample and/or a body liquid sample, ~~such as blood, urea or faeces.~~

49. - 53. (Cancelled)